



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SW

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/709,255 | 11/08/2000 | Brett T. Hannigan | P0243 | 3458 |

23735 7590 12/22/2004

DIGIMARC CORPORATION
9405 SW GEMINI DRIVE
BEAVERTON, OR 97008

| |
|----------|
| EXAMINER |
|----------|

RADA, ALEX P

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3714

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/709,255

Applicant(s)

HANNIGAN ET AL.

Examiner

Alex P. Rada

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 15-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/22/04, 11/1/04.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. Attached hereto.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

In response to the amendment filed September 22, 2004 in which the applicant submits new drawings, amendments to the specification, and claims 1-22 are pending in this office action.

In regards to the improper incorporation by reference noted in the previous office action mailed June 18, 2004 the examiner hereby withdraws the rejection. The support noted by applicant on page 4, lines 23-24 of the specification are a proper incorporation by reference.

The examiner also withdraws the rejection regarding the new matter into the disclosure, the rejection regarding claims 4-7 and 11-19 under 35 U.S.C. 112, first paragraph and the rejection regarding claims 15-19 under 35 U.S.C. 112, second paragraph, in the previous office action mailed June 18, 2004.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Price (US 4,675,519) in view of and Rhoads (US 6,311,214).
3. Price discloses the following:

A toy (100) having two eyes, in which the examiner interprets the optical sensor 10 and 12 (figures 2-3) to be an functional equivalent to the optical sensing elements, and being positioned to view out of at least one of the eyes, and a speaker (25) as recited in claim 1.

Price does not expressly disclose the following:

An image sensor having two-dimensional array and a processor coupled to the image sensor and a steganographic watermark detector for sensing watermark data on an object and triggering an action in response as recited in claim 1.

Rhoads teaches the following:

An image sensor having two-dimensional array and a processor coupled to the image sensor and a steganographic watermark detector for sensing watermark data on an object and triggering an action in response as recited in claim 1. By sensing watermark data on an object, one of ordinary skill in the art would provide a system by which users can interact with computer-based devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Price to include an image sensor having two-dimensional array and a processor coupled to the image sensor and a steganographic watermark detector for sensing watermark data on an object and triggering an action in response as taught by Rhoads to provide a system by which users can interact with computer-based devices.

Art Unit: 3714

4. Claims 2, 7-9, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US 6,311,214).

5. Rhoads discloses the following:

Sensing a page or cover of a book with an image sensor, the sensor having a two-dimensional array (CCD) of optical sensing elements (column 4, lines 35-39), decoding a digital watermark from image data produced by the image sensor and triggering an action associated with the page or cover (column 24, line 63 – column 25, line 4) as recited in claim 2.

The associated action is playback music (column 44, lines 17-35) as recited in claim 7.

The action is retrieving artwork from a data store, and printing the artwork for coloring by a child, in which the examiner interprets the customization of greeting cards, birthday cards, or the like to be a functional equivalent to retrieving artwork from a data store, and printing the artwork (column 10, line 9 – column 11, line 18) as recited in claim 8.

The action is linking to an Internet web site related to the book or its subject matter (abstract) as recited in claim 9.

The starting of a playback of a video at a point corresponding the page or cover, in which the examiner interprets the “ping” and “pong” feature in column 59, lines 7-28) to be a functional equivalent to the starting of a playback of a video at a particular point as recited in claim 20.

Rhoads does not expressly disclose a specific type of book. Rhoads does disclose a page or covers of a book or the like. By having books dedicated to

Art Unit: 3714

certain demographics, it would have been obvious to one of ordinary skill in the art would provide specific types of subject matters related to or targeted to a particular audience.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US 6,311,214) in view of Lemelson (US 5,545,656).

7. Rhoads disclose the claimed invention as discussed above except for the following:

The associated action is speech-reciting text from a book as recited in claim 3.

Lemelson teaches the following:

The associated action is speech-reciting text from a book (summary) as recited in claim 3. By having speech-reciting text from a book, one of ordinary skill in the art would provide a child or handicapped person to derive intelligible information from a book.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Rhoads to further include the action of speech-reciting text from a book as taught by Lemelson to provide a child or handicapped person to derive intelligible information from a book.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US 6,311,214) in view of Lemelson (US 5,545,656) as applied to claim 3 above, and further in view of Linebarger (US 6,068,485).

9. Rhoads in view of Lemelson disclose the claimed invention as discussed above except for the following:

The speech being assembled from component phonemes or common words previously recorded by a person as recited in claim 4.

The component phonemes or common words are stored locally and correspond to a child or child's family member as recited in claim 5.

The component phonemes or common words are stored remotely, and correspond to a celebrity voice as recited in claim 6.

Linebarger teaches the following:

The speech being assembled from component phonemes or common words (58) previously recorded by a person (column 3, line 34 – column 4, line 16) as recited in claim 4.

The component phonemes or common words are stored locally (memory 12), remotely (24), and correspond to a child or child's family member, in which the examiner interprets the common words stored are capable of being from a child or family member as recited in claim 5. By assembling phonemes or common words previously recorded or stored, one of ordinary skill in the art would provide a communication system that is easy and simple to use.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Rhoads to further include the action of speech being assembled from component phonemes or common words previously recorded by a person and the component phonemes or common words are stored locally and correspond to a child or child's family member as taught by Linebarger to provide a communication system that is easy and simple to use.

At the time the invention was made, it would have been an obvious design choice to a person of ordinary skill in the art to provide different voices because Applicant has not disclosed that phonemes or common words correspond to a celebrities voice as recited in claim 6 provides an advantage or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any voice recorded as taught by Linebarger because they provide the same function of providing a simple and easy communication system.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US 6,311,214) in view of Marggraff et al. (US 6,750,978).

11. Rhoads discloses the claimed invention as discussed above except for the following:

The action is a linking to an interactive multiplayer game related to the book or its subject matter as recited in claim 10.

Marggraff teaches the following:

The action being linked to an interactive multiplayer game related to the book (magazine) or its subject (column 11, line 58 – column 12, line 6) as recited in claim 10. By having action linking to an interactive multiplayer game, one of ordinary skill in the art would provide the ability to efficiently retrieve auxiliary information related to the print medium and perform actions related to the print medium.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Rhoads to include an action linking to an interactive multiplayer game related to the book or its subject matter as

Art Unit: 3714

taught by Marggraff to provide the ability to efficiently retrieve auxiliary information related to the print medium and perform actions related to the print medium.

12. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads (US 6,311,214) in view of Lemelson (US 5,545,656) as applied to claim 2 above, and further in view of La Tour (US 5,888,070) and Linebarger (US 6,068,485).

13. Rhoads further discloses sensing a gesture from the image data, and controlling the action in accordance therewith, in which the examiner interprets the gestural decoding module of in column 18, line 48 – column 20, line 6 to be an equivalent to sensing a gesture from the image data as recited in claim 15.

14. Rhoads in view of Lemelson disclose the claimed invention as discussed above except for the following:

The associated action is speech and the speech incorporates both text from the book and substitute words as recited in claim 11.

Retrieving the substitute words from a local store as recited in claim 12.

Soliciting words from a child, recording the child's words, and using the recorded word as the substitute words as recited in claim 13.

The substitute words customize the book text to a particular child or locale as recited in claim 14.

La Tour teaches the following:

The associated action is speech and the speech incorporates both text from the book and substitute words, in which the examiner interprets the recording of parts of the text (word) being equivalent and capable of

incorporating text from the book and substitute words (summary) as recited in claim 11.

Soliciting words from a child, recording the child's words, and using the recorded word as the substitute words, in which the examiner interprets the recording of parts of the text (word) being equivalent and capable of incorporating text from the book and substitute words (summary) as recited in claim 13.

The substitute words customize the book text to a particular child or locale, in which the examiner interprets the multipart drama to be an equivalent to the customizing of the textbook (summary) as recited in claim 14.

Linebarger teaches the following:

Retrieving the substitute words from a local store, in which the examiner interprets the memory (12) to be an equivalent to the words from a local store as recited in claim 12. By incorporating substituted, recorded, and stored local words, one of ordinary skill in the art would provide a learning aid to enhance a child's interest in reading.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Rhoads to further include the action of the associated action is speech and the speech incorporates both text from the book and substitute words, retrieving the substitute words from a local store, soliciting words from a child, recording the child's words, and using the recorded word as the substitute words, and the substitute words customize the

Art Unit: 3714

book text to a particular child or locale as taught by La Tour and Linebarger to enhance a child's interest in reading.

15. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo (6,089,943) in view of Lemelson (US 5,545,656) and Rhoads (US 6,311,214).

16. Lo discloses the following:

A book (12), the book having printed pages (figure 3B), each page encoded with data, one page being encoded with first data and a further page being encoded with second data different than the first data, in which the examiner interprets the barcode to be a functionally equivalent to the data (12A and 12B in figure 3B), one page of the book presented to the reading station, in which the examiner interprets the decoder to be a functional equivalent to the reading station, the reading station having a processor (within decoder), memory (within decoder), a speaker, visible light scan data to the processor (figure 4), the processor decoding the visible light scan data to decode the first data, the processor accessing stored voice data from the memory in accordance with the decoded data and causing the stored voice data to be rendered using the speaker (column 2, lines 9-51), the further page of the book, presenting the further page to the reading station, in which the examiner interprets the decoder to be a functional equivalent to the reading station, the processor of the reading station decoding visible light scan data corresponding to the further page to decode the second data and accessing stored voice data from the memory in accordance with the decoded sound plural bit data and causing the stored voice data to be

rendered using the speaker, and the child controls the read-aloud process as recited in claim 21.

Lo does not expressly disclose the following:

Each page of the book is encoded with different steganographic plural bit data and the different stored voice data for other pages as recited in claim 21.

One of the pages being steganographically encoded with plural bit data and another of the pages being steganographically encoded with different plural bit data, and the steganographic encoding not being apparent to human observers of the pages, but can be decoded from image data produced by visible light scanning of the pages as recited in claim 22.

Lemelson teaches the following:

Accessing different stored voice for the different data as recited in claim 21. By having different stored voice for different data, one of ordinary skill in the art would provide a child or handicapped person to derive intelligible information from a book.

Rhoads teaches the following:

Providing embedded information having different steganographic encoded plural bit data not being apparent to human observers of the different embedded information, but can be decoded from image data produced by visible light scanning of the embedded information as recited in claim 22. By having steganographic encoded plural bit data not being apparent to human observers of different embedded information, one of ordinary skill in the art would provide a multimedia enhanced interactive experience.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Lo to include each page of the book is encoded with different steganographic plural bit data and the different stored voice data for other pages as taught by Lemelson and one of the pages being steganographically encoded with plural bit data and another of the pages being steganographically encoded with different plural bit data, and the steganographic encoding not being apparent to human observers of the pages, but can be decoded from image data produced by visible light scanning of the pages as taught by Rhoads to provide a multimedia enhanced interactive experience.

Allowable Subject Matter

17. Claims 16-19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

18. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex P. Rada whose telephone number is 571-272-4452. The examiner can normally be reached on Monday - Friday, 08:00-16:00.

Art Unit: 3714

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

APR
APR



DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700